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Amendments to the Claims

The following lists all pending claims as amended.

1. (Withdrawn) A method of detecting an HPV-induced invasive cancer or precursor lesion thereof associated with tumor suppressor lung cancer 1 (TSLC1) in a subject in need thereof, the method comprising contacting a cell component of a test cell of the subject with a reagent that detects the level of the cell component in the test cell and determining a modification in the level of the cell component in the test cell as compared with a comparable healthy cell, wherein the cell component indicates the level of TSLC1 in the cell and wherein a decrease in the level of TSLC1 indicates the presence of an HPV-induced invasive cancer or precursor lesion thereof.
2. (Withdrawn) A method according to claim 1, wherein the HPV-induced invasive cancer or precursor lesion thereof is invasive cervical cancer or a premalignant cervical lesion with invasive potential.
3. (Withdrawn) A method according to claim 1 or 2, wherein the HPV-induced invasive cancer is a high-risk HPV-induced invasive cancer.
4. (Withdrawn) A method according to claim 3, wherein the cell component is a nucleic acid associated with production of TSLC1 polypeptide, and the reagent targets the nucleic acid in the test cell, and the nucleic acid encodes the TSLC1 and regulatory regions.

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5. (Withdrawn) A method according to claim 4, wherein the nucleic acid is RNA.
6. (Withdrawn) A method according to claim 4, wherein the reagent is a restriction endonuclease.
7. (Withdrawn) A method according to claim 5, wherein the reagent is a nucleic acid probe or primer that binds to the nucleic acid, having a detectable label.
8. (Withdrawn) A method according to claim 7, wherein the nucleic acid probe has a one of the following nucleotide sequences:
 - a) a polynucleotide sequence capable of hybridizing under stringent conditions to the 5' regulatory region or the coding region of the T'SCL1 sequence as set forth in Figure 1;
 - b) a polynucleotide sequence having at least 70% identity to the polynucleotide of a);
 - c) a polynucleotide sequence complementary to the polynucleotide sequence of a); [and] or
 - d) a polynucleotide sequence comprising at least 15 bases of a polynucleotide sequence of a) or b).
9. (Withdrawn) A method according to claim 8, wherein the cell component is a polypeptide and the reagent targets the polypeptide in the test cell, and

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wherein the polypeptide is TSLC1 and the reagent is an anti-TSLC1 antibody.

10. (Withdrawn) A method according to claim 2, wherein the method of detecting evaluates the methylation status of the TSLC1 promoter.
11. (Currently Amended) A method of detecting an HPV-induced invasive cancer or a precursor lesion thereof associated with tumor suppressor lung cancer 1 (TSLC1) in a subject, the method comprising contacting a target cellular nucleic acid component of in a test cell with a reagent that detects TSLC1, and detecting a reduction in the TSLC1 in the test cell as compared to that of a comparable normal cell, ~~detection of an increase~~ detecting an increase or decrease in methylation of the TSLC1 promoter in the test cell, ~~a reduced production of TSLC1 in the test cell~~ as compared to the a comparable normal cell is ~~determined~~, or both.
12. (Previously Presented) A method according to claim 11, wherein the target cellular component is a nucleic acid.
13. (Previously Presented) A method according to claim 12, wherein the nucleic acid is mRNA.
14. (Withdrawn) A method according to claim 11, wherein the target cellular

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component is a protein.

15. (Previously Presented) A method according to claim 11, wherein the reagent is a nucleic acid probe or primer that binds to TSLC1.
16. (Withdrawn) A method according to claim 14, wherein the reagent is an anti-TSLC1 antibody.
17. (Currently Amended) A method according to claim 14, wherein the subject has loss of heterozygosity at chromosome 11q23.
18. (Withdrawn) A method of treating HPV-induced invasive cancers and their precursor lesions associated with modification of TSLC1 production in cells in a subject afflicted with such a cancer or lesion, the method comprising contacting cells of the subject with a therapeutically effective amount of a reagent that increases TSLC1 level in the cells of the subject.
19. (Withdrawn) A method according to claim 18, wherein the reagent includes is a polynucleotide sequence comprising a TSLC1 sense polynucleotide sequence, preferably said polynucleotide is the native, -unmethylated TSLC1 sense sequence.
20. (Withdrawn) A method according to claim 19, wherein a nonmethylatable analog is substituted for cytidine within the TSLC1 sense sequence, said

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and wherein the nonmethylatable analog preferably being is 5-azacytadine.

21. (Withdrawn) A method according to claim 20, wherein the polynucleotide sequence is contained in an expression vector, and the expression vector is a plasmid, a viral particle or a phage.
22. (Withdrawn) A molecular diagnostic marker for detection of progression to invasiveness of HPV-induced premalignant lesions associated with tumor suppressor lung cancer 1 (TSLC1) and for detection of future metastatic potential of HPV-induced premalignant lesions and carcinomas associated with tumor suppressor lung cancer 1 (TSLC1), wherein the marker indicates TSLC1 promoter methylation, expression of mRNA associated with production of TSLC1 polypeptide, or both.
23. (Withdrawn) A kit for use in a method of detecting HPV-induced invasive cancers and their precursor associated with tumor suppressor lung cancer 1 (TSLC1) in test cells of a subject, the kit comprising means to collect test cells and the molecular diagnostic marker of claim 22.
24. (Withdrawn) A kit for use in a method of detecting HPV-induced invasive cancers and their precursor lesions associated with tumor suppressor lung cancer 1 (TSLC1) in test cells of a subject, the kit comprising primers and probes capable of hybridizing to TSLC1 nucleotide sequence of Figure 1,

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TSLC1 antibodies, or methylation sensitive restriction enzymes recognizing the sequence as described in Figure 1.

25. (Withdrawn) A kit according to claim 23, wherein the test cells are cervical cells.
26. (Withdrawn) A method according to claim 5, wherein the RNA is mRNA.
27. (Withdrawn) A method according to claim 6, wherein the reagent is a methylation sensitive restriction endonuclease.
28. (Withdrawn) A method according to claim 19, wherein the polynucleotide is the native, unmethylated TSLC1 sense sequence.